

Albion Harbor Regional Alliance submits this Array Proposal this day on February 1, 2010

To: Marine Life Protection Act Initiative
 California Natural Resources Agency
 1416 Ninth Street, Suite 1311
 Sacramento, CA 95814
MLPACComments@resources.ca.gov
 Fax 916.653.8102 Attn: MLPA Initiative

From: Albion Harbor Regional Alliance
 POB 122 Albion CA 95410

In accordance;
 With the letter of Intent filed by the **Albion Harbor Regional Alliance**
 California Marine Life Protection Act Initiative North Coast Study Region

External Proposed Marine Protected Area Arrays from Community Groups:
 Intent to Submit Form Revised 11.04.2009

External proposed MPA array submitted: Monday, 02.01.2010

Contributors: All Board Members, additionally several public meetings were held at Albion Harbor's Recreational & Commercial Dock Facility inside at The Albion Flats Cafe on the Albion River, and each was attended by Subsistence, Sport, and Commercial fisheries (seaweed, urchin, crab, rockfish, abalone, clams, mussels, salmon, rock scallops) and seafood processors as far away as Noyo Harbor in Fort Bragg, along with local Environmental conservation groups, and teachers (both active and retired) from distant areas inland (Ukiah) and south to Point Arena.

Array Name: Albion Harbor Regional Alliance NC Array

Primary Contact Information:
 Mike Carpenter POB 122 Albion CA 95410
 ph 707-937-4362 cell 707-513-5946
 email: carp16axeman@gmail.com

Dan Yoakum POB 583 Albion, CA 95410
 ph 707-937-1404 fx 707-937-1405
 cell 707-684-0273 email: dan@mcn.org

THIS COVER PAGE IS PAGE 1 OF 5

Albion Harbor Regional Alliance submits this Array Proposal this day on February 1, 2010

Albion Harbor Regional Alliance NC Array: *Narrative*

Public outreach was first accomplished early throughout the summer of 2009, which closed with a concert at the Albion Harbor Commercial Dock and Complex just 3 days before the MLPA workshops in Fort Bragg began in late September.

Tribal representation that day included a local Native American blues band, several speakers, and many in the crowd of 500. Indigenous rights to access, cultural and ceremonial use of marine resources is considered a natural to be part of ecosystem services and function.

Months and days of hours of conversations with subsistence, sport and commercial user groups (both visitors and local) have been transformed into an external array proposal that we feel both meets the Science Guidelines and the Intent of the Act. Participatory analysis of social and economic impacts were blunt, and in shared trust via group and personal communications by individuals and an array of coastal businesses.

The Albion Harbor Regional Alliance NC Array reflects careful (LEK) assessment and analysis of the North Coast Study Region's marine ecosystem services, health and function, integrated with current fisheries management (Magnuson-Stevens. Fishery Conservation and Management Act. Public Law 94-265 as amended), current species recovery status, small fleet size, access and remote geographical advantage.

Private and public access by launch or on foot (subsistence, and shore fisheries) in the unique NC bioregion's bio-geographical circumstances includes rugged terrain that links land and sea with the outflow of forested rivers and streams bounded by large private landholdings, and remoteness to population centers.

AHRA was intimately involved in all stages with the digital MarineMap tool working through development stages of arrays with MOCA, the Tri-County Workgroup, Mendocino High School's SEA, OPC, Tom Shaver, and other array designers and participants. AHRA's approach included attendance, participation and networking, at all MLPAA workshops, trainings, and BRTF, SAT meetings.

We feel our array is one that covers leagues of input by all user groups, and community members and was crafted of our own time and at great monetary expense to the community. AHRA's hours of networking the way small, remote,

Albion Harbor Regional Alliance submits this Array Proposal this day on February 1, 2010

rural, resource dependent communities do, without readily available digital access portals involved lot's of footwork.

Albion Harbor Regional Alliance NC Array; *General Rationale* for individual MPA design included how the proposed array would help meet the goals of the MLPA.

Designed as a complimentary component of the statewide network, we have determined through careful consideration of the AHRA NC Array, that all 6 specific goals have been met that protect, improve, conserve and rebuild community structure, within marine populations and habitat.

The improvement of recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbance are included and buoyed by consideration of remote geography of MPA siting locations, ocean conditions, weather, access. The enhancement of educational values where previously long term studies at existing monitoring stations have been ongoing, (i.e. Point Cabrillo), makes for a great adaptive management opportunity for science and the community. Clearly defined objectives, effective management measures would benefit from existing baseline knowledge.

The preferred siting of individual MPA's comprising the AHRA NC Array in the Study Region as designed were to capture unique habitats with replication, with clearly defined boundaries, making them easily accessible for research, monitoring and legal enforcement.

The General Rational included Social and Economic impact considerations to the North Coast Maritime rural depressed local economy, with longtime cultural everyday ties to the ocean as a local food shed, rivers as watersheds, and trees that shelter the streams. Subsistence and recreational fishing suffices in hard times while commercial fishing "in and of itself does not substantially impact Northern California fish stocks".

Submitted this day February 1, 2010 by The Albion Harbor Regional Alliance

Michael A Carpenter, Terry Nieves, Dan Yoakum, Bruce Campbell, Carson Bell
Tomas DiFiore

A handwritten signature in black ink, appearing to read "Tomas DiFiore". The signature is stylized with a large, looped "D" and a long, sweeping underline.

California Marine Life Protection Act Initiative
North Coast Study Region: Round 1 Evaluations
Staff Summary of Area and Habitats in External Proposed MPA Array F
Date Created: March 5, 2010

Table 1. Summary of MPAs by Designation for External Proposed MPA Array F

Type of MPA ^a	# of MPAs	Area (mi ²)	% of Study Region
State Marine Reserve (SMR)	7	61.17	6.0%
State Marine Recreational Managed Area (SMRMA)	1	1.84	0.2%
State Marine Park (SMP)	0	0.00	0.0%
State Marine Conservation Area (SMCA)	8	27.08	2.6%
All MPAs combined	16	90.09	8.8%

^a These are proposed marine protected area (MPA) designations, NOT levels of protection assigned by the MLPA Master Plan Science Advisory Team (SAT). SMRMA is not an MPA designation, but rather a marine managed area designation.

Table 2. Summary of MPAs by Level of Protection for External Proposed MPA Array F

Level of Protection (LOP)	# Proposed	Area (mi ²)	% of Study Region
Very High ^b	8	63.01	6.1%
High	1	0.20	<0.1%
Moderate-High	3	25.75	2.5%
Moderate	0	0.00	0.0%
Low ^c	4	1.12	0.1%
Total	16	90.09	8.8%

^b The "Very High" category includes MPAs with SMR designation, as well as SMRMA designations.

^c The "Low" category groups together MPAs that are assigned a moderate-low and low level of protection.

Table 3. Individual MPAs in External Proposed MPA Array F

MPA Name	Size ^d (mi ²)	Alongshore Span ^e (mi)	Depth Range ^f (ft)
Pyramid Point SMR ^g	20.99	4.7	0 - 124
Pyramid Point SMCA ^g	0.20	3.4	0 - 3
Reading Rock SMR ^g	11.38	2.5	90 - 247
Reading Rock SMCA ^g	9.88	3.1	0 - 101
Humboldt Bay SMRMA ^g	1.84	N/A	Depth data not available
Eel River SMCA ^g	13.20	3.7	0 - 120
Punta Gorda SMR ^g	19.36	4.9	0 - 1667
Ten Mile SMR ^g	8.81	2.3	0 - 335
Ten Mile Beach SMCA ^g	2.67	0.7	0 - 288
Ten Mile Estuary SMR ^g	0.19	N/A	Depth data not available
MacKerricher SMCA ^g	0.72	3.0	0 - 38
Point Cabrillo SMCA ^g	0.29	0.5	0 - 23
Point Cabrillo SMR ^g	0.30	0.7	0 - 40
Russian Gulch SMCA ^g	0.09	0.7	0 - 3
Van Damme SMCA ^g	0.02	0.2	0 - 11
Navarro River Estuary SMR ^g	0.14	N/A	Depth data not available

^d Statue mile is the unit of measurement used for this analysis.

^e Alongshore span measured as direct line from one end of the MPA to the other, roughly paralleling the coastline. An alongshore span is not calculated for estuarine MPAs.

^f Comprehensive bathymetric data for all estuaries is not available. Though bathymetric data do exist in portions of some estuaries, depth ranges are not provided for estuarine MPAs for consistency in evaluations.

^g Tribal uses are proposed in this MPA. However, pending further policy guidance, these uses are not currently considered in assigning the level of protection for this MPA.

Table 4. Habitat Representation in External Proposed MPA Array F

Habitat ^h	SMR		SMRMA		SMP		SMCA		Total MPAs	
	Area	%	Area	%	Area	%	Area	%	Area	%
Intertidal										
Sandy or gravel beach*	5.24	3%	0.00	0%	0.00	0%	13.34	7%	18.59	10%
Rocky shores*	10.59	7%	0.28	<1%	0.00	0%	7.31	5%	18.17	11%
Hardened shores*	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%
Coastal marsh*	2.94	3%	1.90	2%	0.00	0%	0.00	0%	4.84	5%
Coastal marsh	0.06	2%	0.04	1%	0.00	0%	0.00	0%	0.10	3%
Tidal flats*	0.36	1%	0.98	1%	0.00	0%	0.00	0%	1.34	2%
Seagrass beds										
Humboldt Eelgrass	0.00	0%	0.57	8%	0.00	0%	0.00	0%	0.57	8%
Estuarine										
Estuary	0.33	1%	1.84	4%	0.00	0%	0.00	0%	2.17	5%

*California MLPA North Coast Study Region
Staff Summary of Area and Habitats in External Proposed MPA Array F
Date Created: March 5, 2010*

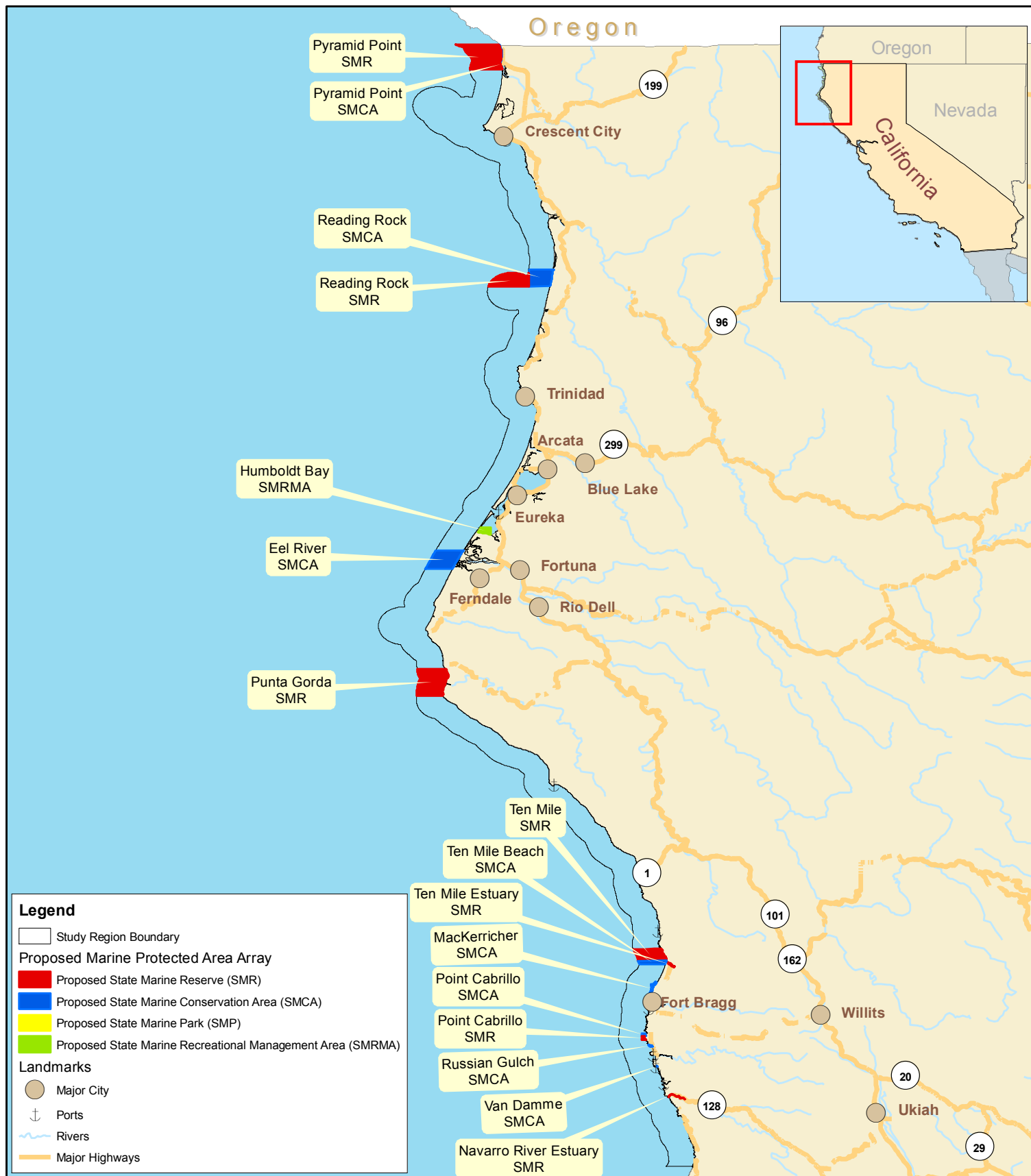
Habitat ^h	SMR		SMRMA		SMP		SMCA		Total MPAs	
	Area	%	Area	%	Area	%	Area	%	Area	%
Hard bottom										
0-30 meters proxy ^{*,i}	3.10	6%	0.00	0%	0.00	0%	0.00	0%	3.10	6%
0-30 meters	2.52	6%	0.00	0%	0.00	0%	0.23	1%	2.75	7%
30-100 meters	1.66	4%	0.00	0%	0.00	0%	0.00	0%	1.66	4%
100-200 meters	0.23	23%	0.00	0%	0.00	0%	0.00	0%	0.23	23%
>200 meters	0.05	52%	0.00	0%	0.00	0%	0.00	0%	0.05	52%
Soft bottom										
0-30 meters proxy ^{*,i}	9.46	6%	0.00	0%	0.00	0%	3.84	2%	13.30	8%
0-30 meters	17.85	7%	0.00	0%	0.00	0%	8.80	3%	26.65	11%
30-100 meters	27.75	7%	0.00	0%	0.00	0%	1.97	<1%	29.72	7%
100-200 meters	3.06	5%	0.00	0%	0.00	0%	0.00	0%	3.06	5%
>200 meters	2.40	31%	0.00	0%	0.00	0%	0.00	0%	2.40	31%
Unknown										
0-30 meters proxy ^{*,i}	0.00	0%	0.00	0%	0.00	0%	3.77	20%	3.77	20%
0-30 meters	5.32	3%	1.84	1%	0.00	0%	15.06	9%	22.22	13%
30-100 meters	0.30	1%	0.00	0%	0.00	0%	1.03	4%	1.33	5%
100-200 meters	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%
>200 meters	0.02	10%	0.00	0%	0.00	0%	0.00	0%	0.02	10%
Other										
Offshore rocks*	7.22	5%	0.00	0%	0.00	0%	5.82	4%	13.04	9%
Linear kelp*	2.55	5%	0.00	0%	0.00	0%	0.45	1%	2.99	6%

^h Note: Habitats are measured as an area (mi²) except for those with a * notation. Habitats with a * notation are expressed in linear units (mi).

ⁱ There is limited fine scale data for nearshore habitat, shallower than 10-20 meters depth, in the north coast study region. A proxy for this area was created using a line parallel to the coast and classifying the substrate as either hard or soft substrate depending on the dominant habitat type for the 0-30 meter depth zone in that area based on available fine-scale substrate data, shoreline type, kelp abundance, and expert knowledge.

MLPA North Coast Study Region

Round 1- North Coast External Proposed MPA Array F



California Marine Life Protection Act (MLPA) Initiative

Projection Information:

Name: NAD 1983 California Teale Albers

Projection: Albers

Datum: North American 1983

Printing Date: February 17, 2010

Created by Marine Map Cartographic Division, UCSB.

For more information, visit <http://www.northcoast.marinemap.org/marinemap/>

Disclaimer:

This map represents a proposed external marine protected area (MPA) array that has been submitted by a north coast community group or groups for consideration in the MLPA planning process. This external MPA array is under review; it is NOT a recommendation to the California Fish and Game Commission.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

Name of Array: North Coast External Proposed MPA Array F (ExF)
Author: Albion Harbor Regional Alliance

Total number of MPAs: 16
 Number of SMRs: 7
 Number of SMCAs: 8
 Number of SMPs: 0
 Number of SMRMAs: 1
 Number proposing tribal uses: 13

Bioregions:
 Northern: Oregon/California border to Mattole River
 Southern: Mattole River to Alder Creek near Point Arena

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Pyramid Point SMR	73968	Northern Bioregion	State waters from the Oregon Border(42 00') southward to rocks immediately south of the Smith River mouth(41 56')(not including the Smith River), from, 42 00.00N/124 12.800W SSE to 41 59.700N/124 12.600W, S to 41 59.400N/ 124 12.600W, SSE to 41 59.200N/124 12.400W, S to 41 57.700N/124 12.400W, SSW to 41 57.700N/124 12.500W, SSW to 41 57.200N/124 12.700W, W to 41 57.200N/124 12.600W, S to 41 57.100N/124 12.600W, W to 41 57.100N/124 12.700W, to 41 57.00N/124 12.600W, SSE to 41 56.900N/124 12.500W, S to 41 56.700N/124 12.500, SSE to 41 56.00N/124 12.600W,41 56.700N/124 12.500 to 41 56.00N/124 12.300.	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Pyramid Point SMR	N/A	G1,G2,G3,G4,G5,G6: Clustered with Pyramid Point SMCA to protect a diversity of coastal marine species and habitats from the Oregon Border to the Smith River, seaward to federal waters. Includes rocky shore, beach, shallow reef, soft bottom, and kelp habitats, and a large off-shore island (Prince Island), and several off-shore rocks important for sea bird colonies and Aleutian Canada geese. Together the cluster provides 21 square miles of protected forage habitat for pinnipeds and cetaceans.	Provides clear and enforceable boundaries with abundant coastal access and vantage points. Provides nearby vessel access (Port of Brookings, OR) for study and enforcement. Reduces distance from Crescent City to fishing grounds thereby improving safety of Crescent City fishers. Reduces economic impacts to sport and commercial fisheries in California's highest poverty level area.

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

** Levels of protection assigned do not take into account proposed Tribal uses.*

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Pyramid Point SMCA	73967	Northern Bioregion	From the Oregon Border south, and from the eastern boundary of Pyramid Point SMR shoreward along a line from: 42 00.00N/124 12.800W SSE to 41 59.700N/124 12.600W, S to 41 59.400N/ 124 12.600W, SSE to 41 59.200N/124 12.400W, S to 41 57.700N/124 12.400W, SSW to 41 57.700N/124 12.500W, SSW to 41 57.200N/124 12.700W, W to 41 57.200N/124 12.600W, S to 41 57.100N/124 12.600W, W to 41 57.100N/124 12.700W, to 41 57.00N/124 12.600W, SSE to 41 56.900N/124 12.500W, S to 41 56.700N/124 12.500, SSE to 41 56.00N/124 12.600W.	SMCA	High	Yes	Take of all living marine resources is prohibited.	Native American gathering for ceremonial, customary, and subsistence purposes are allowed.
Reading Rock SMR	73970	Northern Bioregion	MPA boundaries: North: 41 24.000 minutes to state water lboundary (Extension of inland MPA) then following state water boundary. West: Following state water line South: 41 21.300 minutes North East: 124 08.000 minutes (West boundary of Inland MPA)	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Pyramid Point SMCA	N/A	G1,G2,G3,G4,G5,G6: The Pyramid Point SMCA is clustered with the Pyramid Point SMR to protect intertidal species and habitats and recognize Native American ceremonial, customary, and subsistence gathering uses along intertidal zones of Tolowa ancestral territory.	Provides easy and efficient enforcement via various public access and vantage points. Native American uses of this area, including beach or nearshore gathering for subsistence and ceremonial purposes, have occurred since time immemorial. Those uses should be considered de minimis. Enforcement officials can maintain lawful gathering by way of Native American card or other official identification.
Reading Rock SMR	N/A	Combined with the Reading Rock SMCA, this reserve protects diverse habitats including beaches, soft and hard bottom habitats. Note that anecdotal accounts indicate more rocky habitat present than is depicted in MarineMap. This will be assessed in the near future. Contributes to goals 1-6 of the MLPA.	Minimizes social and economic impacts while combining with the Reading Rock SMCA to form a 21 square mile MPA cluster which will substantially contribute to the State MPA System.

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Reading Rock SMCA	73969	Northern Bioregion	MPA boundaries: North: 41 24.000 minutes (Approximation of parking lot at end of road) West: 124 08.000 minutes (Approximation of 3nm state water boundary) South: 41 21.300 minutes (Approximation of Lagoon and Creek entrance) East: Mean high tide line	SMCA	Moderate high	Yes	The take of all living marine resources is prohibited except: 1. The recreational take of Dungeness crab by hoop net; Dungeness crab by diving; and Dungeness crab by trap. 2. The commercial take of Dungeness crab by trap.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process. Traditional commercial surf fishing as defined and allowed by H.R. 233 (Northern California Coastal Wild Heritage Wilderness Act) should be allowed. The uses defined by this Act should be assigned a high level of protection by the MLPA Initiative. Staff Note: For Round 1, traditional commercial surf fishing was not taken into consideration when levels of protection were assigned because the LOP for this use conflicted with the stated intentions of array proponents. In future rounds, this proposed activity will be assigned an LOP of moderate in all MPAs where it is allowed.
Humboldt Bay SMRMA	73971	Northern Bioregion	MPA boundaries: These boundaries are all inside Humboldt Bay. North: 40 42.700 minutes West: Mean high tide line South: Mean high tide line East: 124 14.100 minutes (Wilderness area boundary)	SMRMA	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process. Hunting shall be permitted.

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Reading Rock SMCA	N/A	Combined with the Reading Rock Reserve, this SMCA protects diverse habitats including beaches, soft and hard bottom habitats. Note that anecdotal accounts indicate more rocky habitat than is depicted in MarineMap. This will be assessed in the near future. Contributes to goals 1-6 of the MLPA.	Minimizes social and economic impacts while combining with the Reading Rock Reserve to form a 21 square mile MPA cluster which will substantially contribute to the State MPA System.
Humboldt Bay SMRMA	N/A	The MPA contains a significant proportion of Humboldt Bay's eelgrass. The Humboldt Bay Harbor District has an ongoing eelgrass monitoring program in Humboldt Bay and would expand that program to include this MPA if adopted. Comparison of this MPA with other areas would allow for a meaningful comparison of areas where clamming is allowed verses restricted.	The MPA is designed to overlap with portions of the Humboldt Bay National Wildlife Refuge.

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Eel River SMCA	73972	Northern Bioregion	MPA boundaries: North: 40 39.000 minutes West: State waters boundary South: 40 36.000 minutes East: Mean high tide line to beach not including any part of the Eel River)	SMCA	Moderate high	Yes	The take of all living marine resources is prohibited except: 1. The recreational take of Dungeness crab by hoop net; Dungeness crab by diving; and Dungeness crab by trap. 2. The commercial take of Dungeness crab by trap.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.
Punta Gorda SMR	73973	Northern Bioregion	MPA boundaries: North: 40 20.000 minutes West: State waters boundary South: 40 15.700 minutes (Approximation of visible point and rock in water) East: Mean high tide line to beach not including any part of the Mattole River)	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process. Retrieval of recreational and commercial crab traps that drift accidentally into the SMR will be permitted, anything within said traps must be released immediately.

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Eel River SMCA	N/A	This unique location attracts feed for numerous pinnipeds, porpoise, whales, birds, and fish like salmon. The combination of river mouth with a nearby canyon make this a highly diverse and productive area with lots of krill and small fish present for much of the year.	This SMCA is a little south of the river mouth to better avoid recreational salmon fishing which occurs in this area.
Punta Gorda SMR	N/A	<p>This SMR enlarges an already existing SMR at Punta Gorda continuing to protect natural ecosystem structure and function with minimal human-induced changes. It will maintain high benthic species abundance and biodiversity which is characteristic of the north coast region.</p> <p>Protects natural trophic structure & food webs, including pelagic finfish that serve as prey for other fish, marine birds & marine mammals.</p> <p>Provides protection to an area that contains one of most persistent & important upwelling plumes along entire California Coast & provides for significant downstream larval dispersal.</p> <p>Protects larval sources & enhance reproductive capacity of shelf species including rockfishes.</p> <p>Protects benthic habitat and forage base for fish, birds and mammals at islands.</p> <p>Increases supply of large adults & larval fish which can disperse to adjacent areas for fisheries harvest outside MPAs.</p>	None specified

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Ten Mile SMR	73964	Southern Bioregion	Southern Boundary: 39.33.3 Northern boundary: 39.35.2 out to the 3-mile limit	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process. Retrieval of recreational and commercial crab traps that have drifted into the Ten Mile SMR shall be ermitted. Removal of invasive species permitted.
Ten Mile Beach SMCA	73966	Southern Bioregion	39.33.3 northern boundary (first washrock north of the Ten Mile River mouth 39.32.7 southern boundary	SMCA	Moderate high	Yes	The take of all living marine resources is prohibited except: 1. The recreational take of Dungeness crab by trap. 2. The commercial take of Dungeness crab by trap.	No wave energy projects or oil exploration/leases. Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.
Ten Mile Estuary SMR	73965	Southern Bioregion	Estuary extends from the mouth of Ten Mile River to an area upstream of approximately 1.7 miles.	SMR	Very high	Yes	Take of all living marine resources is prohibited.	No waterfowl hunting. Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process. Retrieval of recreational and commercial crab traps that drift accidentally into the SMR will be permitted, anything within said traps must be released immediately. Removal of invasive species permitted.

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Ten Mile SMR	N/A	This SMR helps maintain biodiversity in fish, invertebrates, seabirds and marine mammals associated with the protection of the ecosystem. This MPA has great diversity in unique marine habitats including; exposed high energy rocky shoreline, sand and gravel beaches, offshore islets, surf grass, kelp beds, hard and soft substrates, while interfacing with the complex estuarine habitats consisting of eelgrass beds, marshlands and mudflat ecosystems. (G1, G2,G3)	<p>According to the Ecotrust information, this area has a low economic impact on crab and commercial rockfish fisheries. This MPA is adjacent to the mouth of the Ten Mile estuary (proposed SMR).</p> <p>Located at the North end of this MPA is an established marine monitoring site, that along with numerous coastal access points makes it easy for research, recreation and enforcement possible. (G5)</p> <p>This MPA is clustered with an adjacent Ten Mile SMR. (G1,G3, G3)</p>
Ten Mile Beach SMCA	N/A	Adds protection for soft bottom habitat to the adjacent SMR proposed to the north. Connects the estuarine reserve to the offshore SMR while allowing for commercial and recreational crabbing. Serves as an enforcement "buffer" for the "Randy's Rock" Reserve - a kind of "warden's rumble strip" as vessels approach the SMR.	Extremely important crabbing area for the private recreational and commercial passenger fishing vessel fleet out of Fort Bragg. This area must remain open to crabbing.
Ten Mile Estuary SMR	N/A	<p>Estuary protection (Goals 1-5) Estuaries not only support local fish and shellfish populations that are harvested commercially and recreationally, but these waters also serve as spawning and nursery grounds for populations that are harvested offshore. Estuaries rank along with tropical rainforests and coral reefs as the world's most productive ecosystems, more productive than both the rivers and the ocean that influence them from either side.</p> <p>Supports current DFG coho and steelhead salmon habitat conservation projects while protecting essential habitat for federal and state listed threatened anadromous fish including coho, Chinook and steelhead salmon. Habitat for osmoregulation and acclimation for critical life phases of anadromous fish; important transportation corridor for adult salmon spawners; rearing habitat for juvenile salmonids, rockfish, flatfish, and tidewater gobies and habitat for smoltification of juvenile salmonids; migratory corridor for spawning lampreys.(G2)</p>	None specified

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Ten Mile Estuary SMR (continued)								

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Ten Mile Estuary SMR (continued)		<p>All species protected. Prime shorebird and waterfowl habitat; feeding area for pinnipeds; critical habitat and transportation corridor for river otters.</p> <p>This SMR protects larval source and enhance reproductive capacity of numerous invertebrate species such as dungeness crabs, clams, ghost shrimp, eel grass etc. (G1, G2, G4); and expands on long-term protections for complex estuarine habitats, including eelgrass beds, marshlands and mudflat ecosystems.(G1, G2)</p> <p>Almost the entire stretch of this array is close to population centers, with numerous coastal access points making it easy for research, long- term monitoring, recreation and enforcement. (G3, G5)</p>	

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
MacKerricher SMCA	74060	Southern Bioregion	This area is bounded by the mean high tide line, the 3-fathom depth contour and the following points: 39o 29.81' N. lat. 123o 47.50' W. long.; 39o 29.95' N. lat. 123o 47.80' W. long.; 39o 27.62' N. lat. 123o 48.80' W. long.; and 39o 27.55' N. lat. 123o 48.52' W. long.	SMCA	Low	No	The take of all living marine resources is prohibited except: 1. The recreational take of Finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels.. 2. The commercial take of Finfish, crabs, ghost shrimp, jackknife clams, sea urchins, squid, algae except giant kelp and bull kelp and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.	None
Point Cabrillo SMCA	73961	Southern Bioregion	From a visible landmark at the south Caspar Headlands, to include all of Frolic Cove, an important archaeological site. The existing Point Cabrillo SCMA bisects this cove, making it difficult to enforce.	SMCA	Moderate low	Yes	The take of all living marine resources is prohibited except: 1. The recreational take of red abalone by free-diving. 2. The commercial take of urchin by diving.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
MacKerricher SMCA	N/A	None	None
Point Cabrillo SMCA	N/A	<p>Allows for research opportunities to study the ecosystem relationships between abalone, algae and sea urchins. Side by side with an SMR, the biodiversity can be compared with an adjacent conservation area that allows harvest of both abalone and sea urchin. No take of kelp/algae.</p> <p>This study area will additionally provide a opportunity to study the relationship between understory canopy and benthic layer turf algae.</p>	<p>Easy access for research. This has area is part of a larger area closed to sea commercial urchin harvest (only) since 1992(?). Ongoing studies occur here. By reopening this area to recreational abalone harvest and commercial and recreational sea urchin harvest, biologists can learn about how the adjacent area (Pt. Cabrillo SMR) replenishes an adjacent fished area.</p> <p>This SMCA only allows the legal taking of urchin and abalone, thus providing a site for the practice of adaptive management as originally stated in the intent of the law.</p>

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Point Cabrillo SMR	73962	Southern Bioregion	Southern boundary = 39 20.606' Northern boundary = 39 21.209' Western boundary = 123 50'	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process.
Russian Gulch SMCA	74063	Southern Bioregion	This area is bounded by the mean high tide line, the 3-fathom depth contour and the following points: 39o 19.86' N. lat. 123o 48.84' W. long.; 39o 19.85' N. lat. 123o 48.89' W. long.; 39o 19.52' N. lat. 123o 48.46' W. long.; and 39o 19.52' N. lat. 123o 48.23' W. long.	SMCA	Low	No	The take of all living marine resources is prohibited except: 1. The recreational take of Finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels. 2. The commercial take of Finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae except giant kelp and bull kelp and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.	None

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Point Cabrillo SMR	N/A	This proposed SMR contains high-quality invertebrate habitat and has been closed to commercial and recreational take of invertebrates since 1975, and the area was also closed to recreational take of finfish while allowing commercial take of finfish. This SMR would replace the existing Pt. Cabrillo SMCA and make the boundaries more feasible. Local biologists say this area is large enough to conduct studies on sea urchins and abalone. Along with the adjacent SMCA to the north, this cluster will provide side by side study opportunity of a no-take zone and an area of sustainable harvests of abalone and urchins.	Increases feasibility using easily distinguishable landmarks. Adjacent to a state park for recreational non-extractive activities such as scuba diving. Very accessible for research. Maintains a long time series of data from previous studies. We have proposed to local tribal councils that they adopt these regulations for their members, but pending government-to-government consultations, any regulations affecting tribal members must be passed by both the California Fish & Game Commission and the tribal councils concurrently, similar to the creation of a State Marine Park. This is a perfect area for study that could allow for the development of adaptive management, and collaborative research with the local fishing community, biologists and the tribes.
Russian Gulch SMCA	N/A	None	None

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	MPA ID	Bioregion	MPA Boundaries (Exact or Approximate)	Designation	Level of Protection*	Propose Tribal Uses?	Proposed Take Regulations	Other Proposed Regulations
Van Damme SMCA	74067	Southern Bioregion	This area is bounded by the mean high tide line, the 3-fathom depth contour and the following points: 39o 16.45' N. lat. 123o 47.60' W. long.; 39o 16.355' N. lat. 123o 47.60' W. long.; 39o 16.27' N. lat. 123o 47.545' W. long.; and 39o 16.27' N. lat. 123o 47.43' W. long.	SMCA	Low	No	The take of all living marine resources is prohibited except: 1. The recreational take of Finfish, red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels and marine worms except that no worms may be taken in any mussel bed unless taken incidentally to the take of mussels. 2. The commercial take of Finfish, crabs, ghost shrimp, jackknife clams, sea urchins, algae except giant kelp and bull kelp and worms except that no worms may be taken in any mussel bed, nor may any person pick up, remove, detach from the substrate any other organisms, or break up, move or destroy any rocks or other substrate or surfaces to which organisms are attached.	None
Navarro River Estuary SMR	73963	Southern Bioregion	Mouth of the Navarro River to 3.450 miles inland in estuary waters seasonally affected by the tidal influence.	SMR	Very high	Yes	Take of all living marine resources is prohibited.	Traditional Tribal subsistence, gathering and ceremonial uses should not be regulated in the MLPA Process. Retrieval of recreational and commercial crab traps permitted. Removal of invasive species permitted. Vessels permitted.

SMCA=state marine conservation area SMP=state marine park SMRMA=state marine recreational management area SMR=state marine reserve TBD=to be determined

* Levels of protection assigned do not take into account proposed Tribal uses.

California MLPA North Coast Study Region
Description of Marine Protected Areas (MPAs) in Array F
Document Updated March 5, 2010

MPA Name	Regional Goals/Objectives	Site-specific Rationale	Other Considerations
Van Damme SMCA	N/A	None	None
Navarro River Estuary SMR	N/A	<p>Estuary protection (Goals 1.2.3.4 & 6) Anadromous fish refugia: habitat for osmoregulation and acclimation for critical life phases of anadromous fish; important transportation corridor for adult salmon spawners; provides rearing habitat for juvenile salmonids, rockfish, flatfish, and tidewater gobies and habitat for smoltification of juvenile salmonids; migratory corridor for spawning lampreys.</p> <p>All species protected. Prime shorebird and waterfowl habitat; feeding area for pinnipeds; critical habitat and transportation corridor for river otters.</p>	<p>Recreational kayaking and canoeing destination. Close proximity to Navarro Beach Campground [part of the Navarro River Redwoods SP] and shorebird and mammal viewing.</p> <p>Easily accessible to the public; no negative socio-economic impact on fishing, sea urchin or seaweed harvesting industries or related businesses.</p>

Albion Harbor Regional Alliance submits this Array Proposal this day on February 1, 2010

Albion Harbor Regional Alliance NC Array: *Fate of Existing MPAs*

First and foremost it is imperative that the State of California and the Federal Government realize that it is not the intention of the array proponents to prohibit traditional native tribal access, harvest, or uses, or to interfere with their sovereignty on their ancestral lands.

Because there are (5) existing MPAs in the Study Region, (4) of which are on the Mendocino Coast, slightly more than one page communicates proposed changes.

Current MPA's in the North Coast Study region and the AHRA NC Array:

http://www.dfg.ca.gov/mlpa/mpa_regs.asp

1) retains the MPA without change, 2) modifies the boundaries and/or regulations of the MPA, or 3) removes the MPA. A sentence explains the proposed action.

Humboldt County

Punta Gorda State Marine Reserve

2) modifies the boundaries and/or regulations of the MPA,

This existing reserve is hugely expanded and the boundaries are modified to fully encompass the State waters and are expanded north and south while the SMR Regulations remain.

The AHRA Array proposal here has a variety of diverse habitats including upwelling zones, submarine canyons, reef structures, and improves study opportunities provided by marine ecosystems that are subject to minimal human impacts.

Mendocino County

MacKerricher State Marine Conservation Area

1) retains the MPA without change,

This SMR helps maintain biodiversity in fish, invertebrates, seabirds and marine mammals associated with the protection of the ecosystem. The Ten Mile SMR, the Ten Mile Beach SMCA and the Ten Mile River Estuary SMR are all within a couple miles walk north on the long sandy beach that extends from the MacKerricher SMCA to the Ten Mile Beach SMCA with easy public access.

The AHRA Array proposal here clusters MPA's north and south at the Ten Mile River, and located at the North end of this cluster is an established marine monitoring site, that along with numerous coastal access points, easily makes research, recreation and enforcement possible.

Albion Harbor Regional Alliance submits this Array Proposal this day on February 1, 2010

Mendocino County

Point Cabrillo State Marine Conservation Area

2) modifies the boundaries and/or regulations of the MPA,

This easily accessible area is part of a larger area already closed to sea commercial urchin harvest. Side by side with an SMR, the marine ecosystem structure and biodiversity within a conservation area that allows the harvest of both red abalone and sea urchin but no take of kelp/algae, can be compared.

Mendocino County

Point Cabrillo State Marine Reserve

2) modifies the boundaries and/or regulations of the MPA,

This proposed SMR contains high-quality invertebrate habitat and has been closed to commercial and recreational take of invertebrates since 1975, as a SMR, it would replace the existing Pt. Cabrillo SMCA and make the boundaries more feasible.

Along with the adjacent SMCA to the north, this cluster will provide side by side study opportunity of a no-take zone and an area of sustainable harvests of abalone and urchins.

Mendocino County

Russian Gulch State Marine Conservation Area

1) retains the MPA without change,

Prohibits take of all marine aquatic plants; and all invertebrates EXCEPT red abalone, chiones, clams, cockles, rock scallops, native oysters, crabs, lobster, ghost shrimp, sea urchins, mussels, and marine worms, and allows for recreational take of finfish.

This is a busy State Park in the summer and recreationalists are familiar with the SMCA regulations along the shore and we feel this SMCA serves its purpose as is.

Mendocino County

Van Damme State Marine Conservation Area

1) retains the MPA without change,

Much like Russian Gulch, this SMCA currently prohibits the take of all marine plants but allows recreational harvest of some invertebrates. This nearshore area is the most easily accessible to recreationists, and is a highly productive ecosystem.

This is a busy State Park in the summer and recreationalists are familiar with the SMCA regulations along the shore and we feel this SMCA serves its purpose as is.

California Marine Life Protection Act Initiative
North Coast Study Region
Consideration of Existing Marine Protected Areas for External MPA Array F
Document Revised February 16, 2010

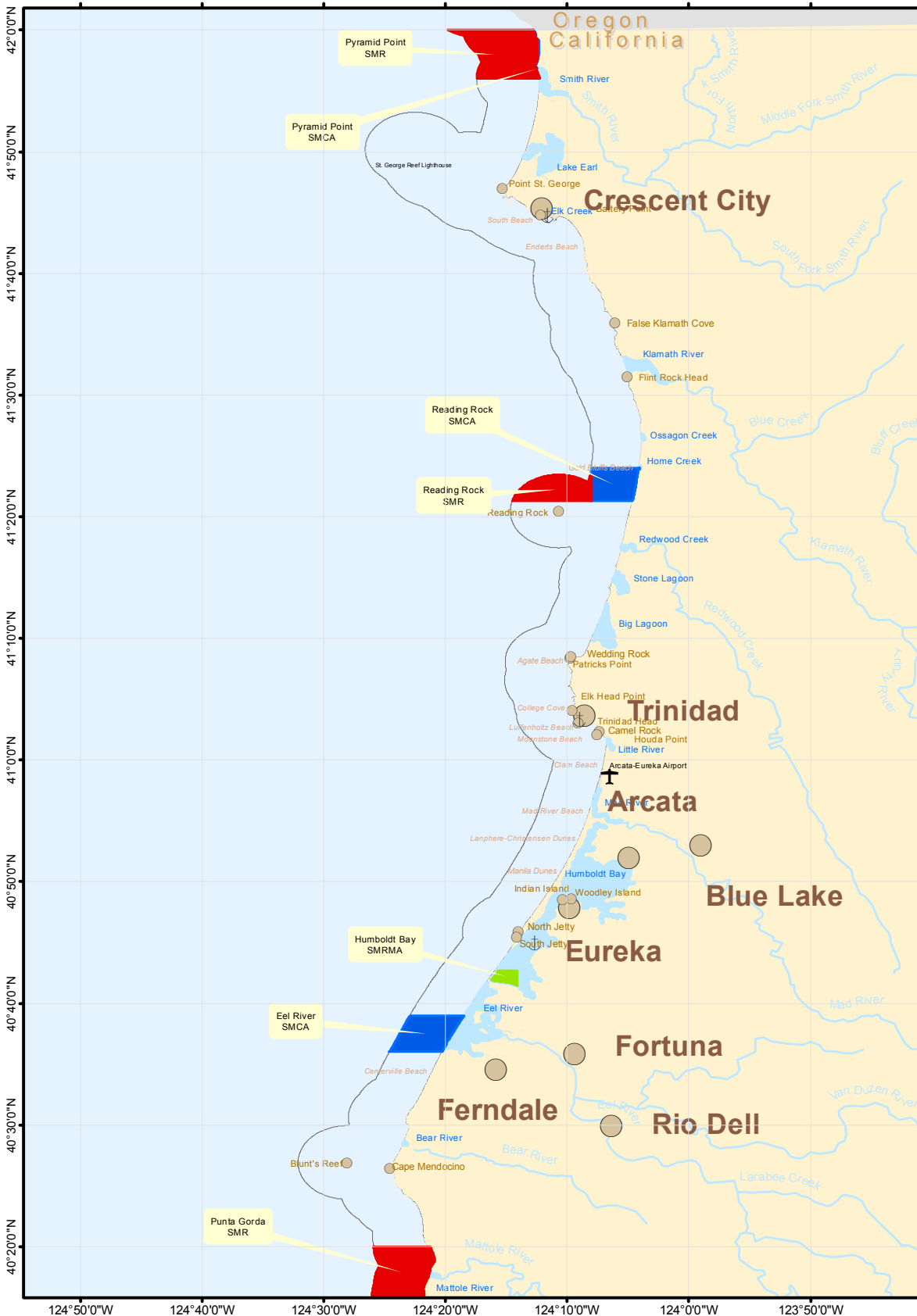
Please indicate how each to the five existing marine protected areas (MPAs) in the MLPA North Coast Study Region listed below should be addressed. You may propose that the existing MPA be retained without change, be retained with changes to either the boundaries or regulations, or removed. Please also describe the rationale for your proposed action in the space provided. For your reference, the existing regulations and boundaries for these MPAs are included in Tables 1 and 2.

Existing MPA	Retain (no changes to boundaries or regulations)	Modify (included with boundary or regulation change)	Remove (not included)	Rationale for Decision
Punta Gorda SMR		Modify boundaries		This existing reserve is expanded and the boundaries are modified to fully encompass the State waters and are expanded north and south while the SMR regulations remain.
MacKerricher SMCA	Retain			This SMR helps maintain biodiversity in fish, invertebrates, seabirds and marine mammals associated with the protection of the ecosystem. The Ten Mile SMR, the Ten Mile Beach SMCA and the Ten Mile River Estuary SMR are all within a couple miles walk north on the long sandy beach that extends from the MacKerricher SMCA to the Ten Mile Beach SMCA with easy public access.
Point Cabrillo SMCA		Modify boundaries and regulations (Point Cabrillo SMCA and Point Cabrillo SMR)		The Point Cabrillo SMCA and SMR complex is aimed to replace the existing Pt. Cabrillo SMCA and make the boundaries more feasible.
Russian Gulch SMCA	Retain			This is a busy State Park in the summer and recreationalists are familiar with the SMCA regulations along the shore and we feel this SMCA serves it purpose as is.
Van Damme SMCA	Retain			This is a busy State Park in the summer and recreationalists are familiar with the SMCA regulations along the shore and we feel this SMCA serves it purpose as is.

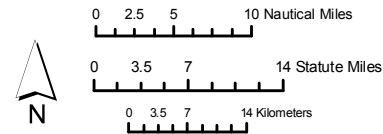
SMR = State Marine Reserve, SMCA = State Marine Conservation Area

MLPA North Coast Study Region Round 1 - North Coast External Proposed MPA Array F

Northern Bioregion (Oregon/California border to Mattole River)



California Marine Life Protection Act (MLPA) Initiative



Date: 16 February 2010

Created by:
Marine Map Cartographic Division, UCSB.

For more information visit:
<http://www.northcoast.marinemap.org/marinemap/>



Disclaimer:

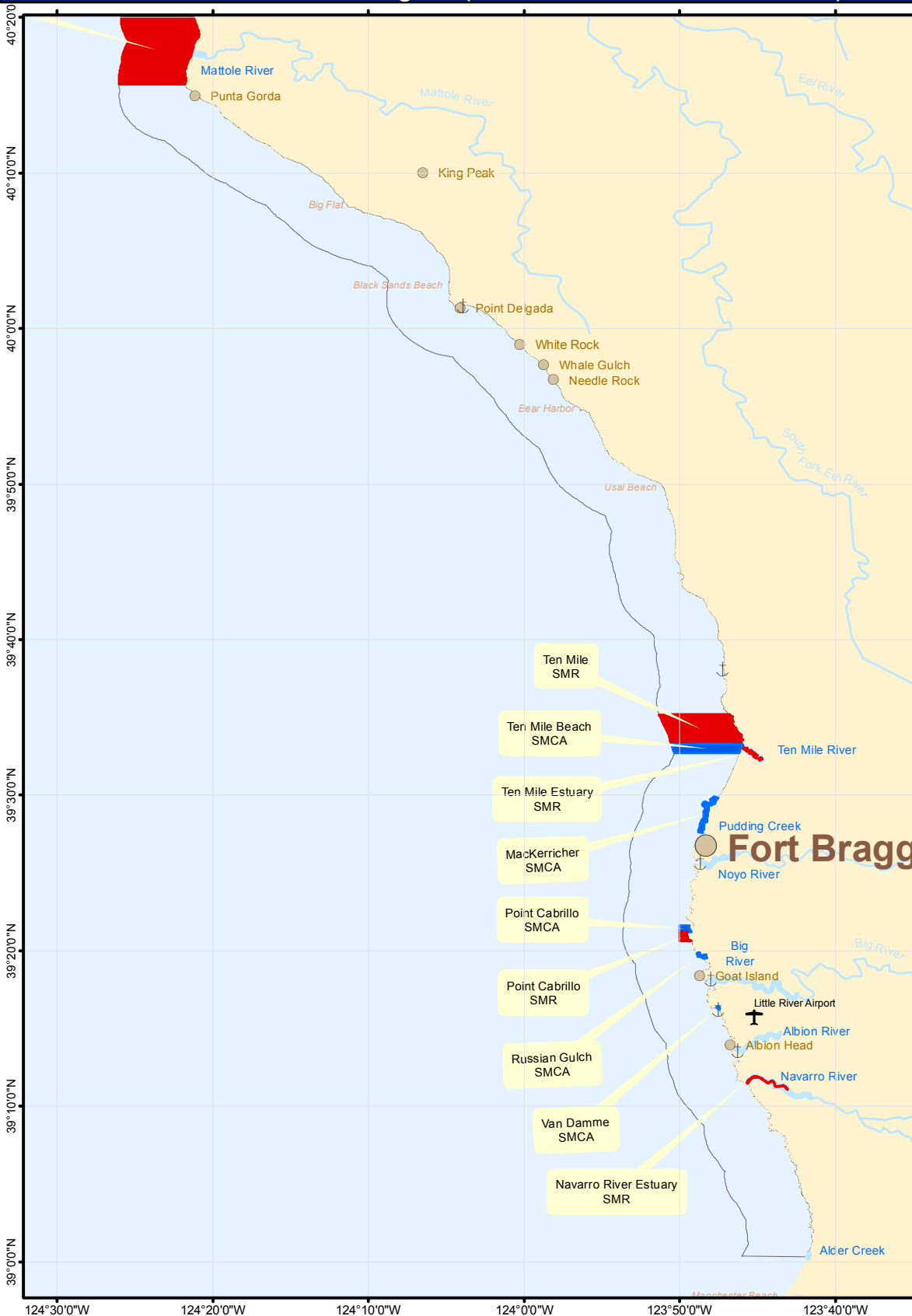
This map represents a proposed external marine protected area (MPA) array that has been submitted by a north coast community group or groups for consideration in the MLPA planning process. This external MPA array is under review; it is NOT a recommendation to the California Fish and Game Commission.

Legend

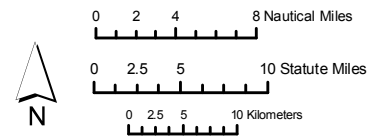
- | | | |
|--|-----------|---------------|
| North Coast Study Region Boundary | Estuaries | Lighthouse |
| Proposed Marine Protected Area Array | Rivers | Airport |
| Proposed State Marine Reserve (SMR) | | Coastal Point |
| Proposed State Marine Conservation Area (SMCA) | | Major City |
| Proposed State Marine Park (SMP) | | Ports |
| Proposed State Marine Recreational Management Area (SMRMA) | | |

MLPA North Coast Study Region Round 1 - North Coast External Proposed MPA Array F

Southern Bioregion (Mattole River to Alder Creek)



California Marine Life Protection Act (MLPA) Initiative



Date: 18 February 2010

Created by:
Marine Map Cartographic Division, UCSB.

For more information visit:
<http://www.northcoast.marinemap.org/marinemap/>



Disclaimer:

This map represents a proposed external marine protected area (MPA) array that has been submitted by a north coast community group or groups for consideration in the MLPA planning process. This external MPA array is under review; it is NOT a recommendation to the California Fish and Game Commission.

Legend

- | | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

California MLPA North Coast Project
Habitat Calculations for North Coast External Proposed MPA Array F (ExF)
Document Revised on: March 3, 2010

	How Measured	Total Available Habitat	Pyramid Point SMR	Pyramid Point SMCA	Reading Rock SMR	Reading Rock SMCA	Humboldt Bay SMRMA
MPA ID			73968	73967	73970	73969	73971
MPA Designation			SMR	SMCA	SMR	SMCA	SMRMA
Level of Protection			Very high	High	Very high	Moderate High	Very high
SAT Evaluation Bioregion			Northern	Northern	Northern	Northern	Northern
Area	sq miles	1,027.23	20.99	0.20	11.38	9.88	1.84
Alongshore Span	miles	NA	4.66	3.45	2.49	3.10	N/A
ESI Shoreline	miles	516.66	1.38	3.97	0.00	3.16	3.16
Min Depth	feet	0.00	0.00	0.00	90.00	0.00	N/A
Max Depth	feet	1,667.00	124.00	3.00	247.00	101.00	N/A
Beaches	miles	180.42	0.20	3.77	0.00	3.16	0.00
Rocky Shores	miles	159.08	1.18	0.19	0.00	0.00	0.28
Hardened Shores	miles	22.10	0.00	0.00	0.00	0.00	0.00
Coastal Marsh	miles	88.60	0.00	0.00	0.00	0.00	1.90
Coastal Marsh (area)	sq miles	3.51	0.00	0.00	0.00	0.00	0.04
Tidal Flats	miles	66.46	0.00	0.00	0.00	0.00	0.98
Humboldt Eelgrass	sq miles	7.07	0.00	0.00	0.00	0.00	0.57
Estuary	sq miles	43.49	0.00	0.00	0.00	0.00	1.84
Offshore Rocks	miles	140.73	2.53	0.35	0.00	0.00	0.00
Linear Kelp	miles	52.10	0.00	0.00	0.00	0.00	0.00
Hard (0 - 30m) Proxy	miles	54.01	0.43	0.00	0.00	0.00	0.00
Hard (0 - 30m)	sq miles	42.32	0.99	0.00	0.00	0.00	0.00
Hard (30 - 100m)	sq miles	45.08	0.00	0.00	0.05	0.00	0.00
Hard (100 - 200m)	sq miles	0.99	0.00	0.00	0.00	0.00	0.00
Hard (> 200m)	sq miles	0.09	0.00	0.00	0.00	0.00	0.00
Soft (0 - 30m) Proxy	miles	159.39	4.21	0.00	0.00	3.14	0.00
Soft (0 - 30m)	sq miles	252.26	14.80	0.00	0.21	8.20	0.00
Soft (30 - 100m)	sq miles	420.79	2.53	0.00	11.10	0.12	0.00
Soft (100 - 200m)	sq miles	62.48	0.00	0.00	0.00	0.00	0.00
Soft (> 200m)	sq miles	7.67	0.00	0.00	0.00	0.00	0.00
Unknown (0 - 30m) Proxy	miles	19.10	0.00	0.00	0.00	0.00	0.00
Unknown (0 - 30m)	sq miles	164.96	2.39	0.20	0.00	1.55	1.84
Unknown (30 - 100m)	sq miles	26.74	0.28	0.00	0.02	0.00	0.00
Unknown (100 - 200m)	sq miles	0.15	0.00	0.00	0.00	0.00	0.00
Unknown (> 200m)	sq miles	0.20	0.00	0.00	0.00	0.00	0.00

California MLPA North Coast Project
Habitat Calculations for North Coast External Proposed MPA Array F (ExF)
Document Revised on: March 3, 2010

	Eel River SMCA	Punta Gorda SMR	Ten Mile SMR	Ten Mile Beach SMCA	Ten Mile Estuary SMR	MacKerricher SMCA	Point Cabrillo SMCA
MPA ID	73972	73973	73964	73966	73965	74060	73961
MPA Designation	SMCA	SMR	SMR	SMCA	SMR	SMCA	SMCA
Level of Protection	Moderate High	Very high	Very high	Moderate High	Very high	Low	Moderate Low
SAT Evaluation Bioregion	Northern	Northern	Southern	Southern	Southern	Southern	Southern
Area	13.20	19.36	8.81	2.67	0.19	0.72	0.29
Alongshore Span	3.71	4.95	2.25	0.67	N/A	3.02	0.51
ESI Shoreline	3.75	5.47	5.03	0.76	3.24	4.50	1.95
Min Depth	0.00	0.00	0.00	0.00	N/A	0.00	0.00
Max Depth	120.00	1667.00	335.00	288.00	N/A	38.00	23.00
Beaches	3.75	3.30	1.20	0.75	0.42	1.57	0.00
Rocky Shores	0.00	2.17	3.83	0.02	0.51	2.93	1.95
Hardened Shores	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coastal Marsh	0.00	0.00	0.00	0.00	2.30	0.00	0.00
Coastal Marsh (area)	0.00	0.00	0.00	0.00	0.05	0.00	0.00
Tidal Flats	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Humboldt Eelgrass	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Estuary	0.00	0.00	0.00	0.00	0.19	0.00	0.00
Offshore Rocks	0.00	0.98	2.44	0.01	0.00	3.56	0.89
Linear Kelp	0.00	0.38	1.86	0.00	0.00	0.00	0.45
Hard (0 - 30m) Proxy	0.00	1.81	0.66	0.00	0.00	0.00	0.00
Hard (0 - 30m)	0.00	1.03	0.38	0.00	0.00	0.09	0.12
Hard (30 - 100m)	0.00	1.42	0.20	0.00	0.00	0.00	0.00
Hard (100 - 200m)	0.00	0.23	0.00	0.00	0.00	0.00	0.00
Hard (> 200m)	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Soft (0 - 30m) Proxy	0.00	3.49	1.59	0.70	0.00	0.00	0.00
Soft (0 - 30m)	0.00	1.45	1.31	0.54	0.00	0.04	0.01
Soft (30 - 100m)	0.00	7.91	6.21	1.84	0.00	0.00	0.00
Soft (100 - 200m)	0.00	2.96	0.10	0.00	0.00	0.00	0.00
Soft (> 200m)	0.00	2.40	0.00	0.00	0.00	0.00	0.00
Unknown (0 - 30m) Proxy	3.77	0.00	0.00	0.00	0.00	0.00	0.00
Unknown (0 - 30m)	12.17	1.89	0.62	0.28	0.19	0.59	0.16
Unknown (30 - 100m)	1.03	0.00	0.00	0.00	0.00	0.00	0.00
Unknown (100 - 200m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown (> 200m)	0.00	0.02	0.00	0.00	0.00	0.00	0.00

California MLPA North Coast Project
Habitat Calculations for North Coast External Proposed MPA Array F (ExF)
Document Revised on: March 3, 2010

	Point Cabrillo SMR	Russian Gulch SMCA	Van Damme SMCA	Navarro River Estuary SMR
MPA ID	73962	74063	74067	73963
MPA Designation	SMR	SMCA	SMCA	SMR
Level of Protection	Very high	Low	Low	Very high
SAT Evaluation Bioregion	Southern	Southern	Southern	Southern
Area	0.30	0.09	0.02	0.14
Alongshore Span	0.69	0.69	0.20	N/A
ESI Shoreline	2.18	2.22	0.35	1.85
Min Depth	0.00	0.00	0.00	N/A
Max Depth	40.00	3.00	11.00	N/A
Beaches	0.00	0.00	0.35	0.12
Rocky Shores	2.18	2.22	0.00	0.72
Hardened Shores	0.00	0.00	0.00	0.00
Coastal Marsh	0.00	0.00	0.00	0.64
Coastal Marsh (area)	0.00	0.00	0.00	0.01
Tidal Flats	0.00	0.00	0.00	0.36
Humboldt Eelgrass	0.00	0.00	0.00	0.00
Estuary	0.00	0.00	0.00	0.14
Offshore Rocks	1.28	0.93	0.10	0.00
Linear Kelp	0.31	0.00	0.00	0.00
Hard (0 - 30m) Proxy	0.19	0.00	0.00	0.00
Hard (0 - 30m)	0.12	0.02	0.00	0.00
Hard (30 - 100m)	0.00	0.00	0.00	0.00
Hard (100 - 200m)	0.00	0.00	0.00	0.00
Hard (> 200m)	0.00	0.00	0.00	0.00
Soft (0 - 30m) Proxy	0.17	0.00	0.00	0.00
Soft (0 - 30m)	0.08	0.00	0.00	0.00
Soft (30 - 100m)	0.00	0.00	0.00	0.00
Soft (100 - 200m)	0.00	0.00	0.00	0.00
Soft (> 200m)	0.00	0.00	0.00	0.00
Unknown (0 - 30m) Proxy	0.00	0.00	0.00	0.00
Unknown (0 - 30m)	0.10	0.07	0.02	0.13
Unknown (30 - 100m)	0.00	0.00	0.00	0.00
Unknown (100 - 200m)	0.00	0.00	0.00	0.00
Unknown (> 200m)	0.00	0.00	0.00	0.00